

AN INTERFACE CIRCUIT FOR COUPLING BETWEEN LOGIC CIRCUIT
DOMAINS

ABSTRACT OF THE DISCLOSURE

CMOS circuitry is partitioned into first and second logic circuit domains. The
5 first logic circuit domain may be optionally a cuttable domains (C_Domains) where
circuitry has power supply gating to reduce leakage power and non-cuttable domains
(NC_Domains) where circuitry does not have power supply gating. Each output that
couples signals from one logic circuit domain to another logic circuit is interfaced
with a C_driver and a S_keeper which automatically assure that the output state is
10 held when circuitry is power-gated put to reduce leakage power. The S_keeper and
C_driver have low leakage circuits that maintain signal states and are not used for
high speed operation.